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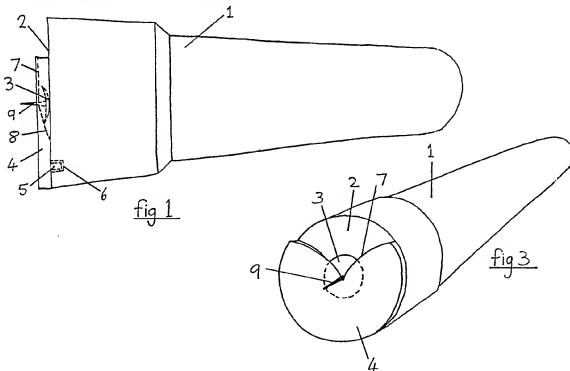
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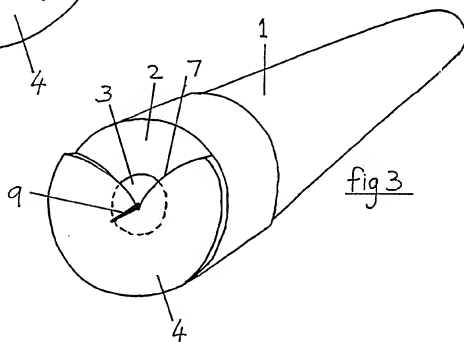
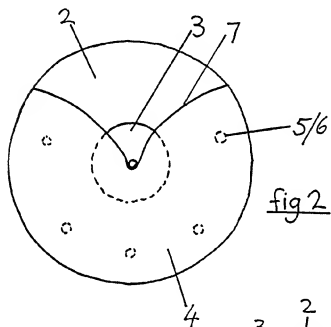
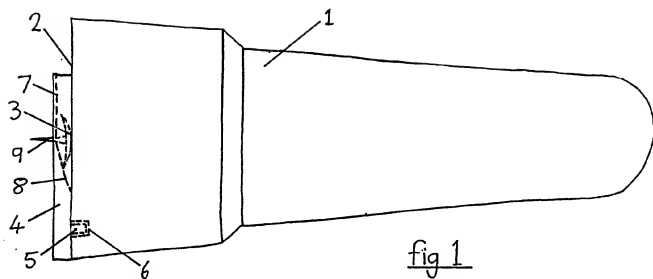
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(54) Manual applicator and extractor tool

(57) A manual applicator and extractor tool is provided for fasteners having a head (3) and a shank (9). The tool comprises a handgrip (1) having a pressure surface (2) at one end for applying pressure to the head (3) and carrying an extractor plate (4) which is engageable under the head (3). The plate (4) is spaced from the pressure surface (2) and is provided with a recess (7) enabling the shank (9) to project forwards through the recess when the head (3) is accommodated between the pressure surface (2) and the plate (4).

The recess may be V-shaped or in the form of a slot extending from the circumference to near the centre of the plate 4. The inside face of plate 4 may be chamfered 8 to facilitate accommodation of different sizes of pin heads.





## MANUAL APPLICATOR AND EXTRACTOR TOOL

The invention relates to a manual applicator and extractor tool for fasteners having a head and a shank, and aims to provide an improved such tool which is cheap to make yet efficient to use. The invention relates particularly to such tools for drawing pins and will hereinafter be described in relation thereto.

According to the invention the tool comprises a hand grip having a pressure surface at one end for applying pressure to the head of the drawing pin and carrying an extractor plate which is engageable under the head, spaced from the pressure surface and provided with a recess enabling the shank of the pin to project forwards through the recess when the head is accommodated between the pressure surface and the plate.

An example of the invention will now be described with reference to the accompanying drawings in which fig 1 is a side view of the tool, fig 2 is a front end view and fig 3 is a perspective view. Each view has a drawing pin in place shown wholly or partly in broken lines.

The illustrated applicator and extractor tool comprises a handgrip 1, having a pressure surface 2 at one end to apply pressure to the head of the drawing pin 3. The handgrip may be separately moulded from the plate from plastics material. The

plate 4 may be secured to the handgrip 1 by means of studs 5 moulded on the plate 4, engaging sockets 6 moulded into the end of the handgrip 1, with a tight fit; possibly assisted by adhesive.

The recessed end of the plate defines an extractor blade and is substantially 'V' shaped 7 and moulded with a sharp edge to enable the tool to be more easily engaged under the head of a tight fitting drawing pin on extraction. The inside face of the plate is chamfered 8 between the blade edge of the plate and the fixing studs in order to attain greater strength. This chamfer may also serve to allow the accommodation of different sizes of drawing pin heads. (Chamfer and blade are indicated in fig 1 by broken lines).

When the tool is to be used to apply a drawing pin, the pin is manually inserted between the plate 4 and the pressure surface 2 by grasping the shank of the drawing pin 9 and sliding it through the recess with the head 3 engaged between the two, until the shank engages the end of the recess and/or the head 3 is wedged between the chamfer 8 and the pressure surface 2. It will be evident that the drawing pin can then be driven home by grasping the handgrip 1 and applying pressure.

To extract a drawing pin the tool is applied so that the extractor blade 7 engages under the head and a pull on the handgrip 1 will then remove the pin.

It is preferable to use this tool for applying as well as extracting the drawing pin because the pin is applied in such a way that a space is left under the head into which the extractor blade can later be inserted.

Various modifications are possible without departing from the concept of the invention. For example the shape of the recess can be different and could conceivably be in the form of a slot extending from the circumference to near the centre of the plate. The cross sectional shape of the handgrip and plate could be rectilinear.

The tool is not restricted in use for drawing pins but could also be adapted for the application and extraction of map pins.

CLAIMS

1. A manual applicator and extractor tool for fasteners having a head and a shank, comprising a handgrip having a pressure surface at one end for applying pressure to the head of the fastener and carrying an extractor plate which is engageable under the head, is spaced from the pressure surface and is provided with a recess enabling the shank of the fastener to project forwards through the recess when the head is accommodated between the pressure surface and the plate.

2. A tool according to claim 1, wherein the handgrip and extractor plate are moulded from plastics material.

3. A tool according to claim 1 or claim 2, wherein the recess is substantially V-shaped and moulded with an edge which facilitates entry of the plate beneath the head of the fastener when the tool is to be used for extraction.

4. A tool according to any preceeding claim, wherein the plate merges with a tapered portion which extends to the pressure face and defines an oblique surface between which and the pressure face the fastener head can be wedged.

5. A manual applicator and extractor tool substantially as hereinbefore described with reference to the accompanying drawings.